

# The Economic Impact of the 2012 Flying Pig Marathon

By Steve Cobb, Ph.D and Doug Olberding, Ed.D

From May 10 to June 4, 2012, Burke, Inc. conducted a survey of participants in the 2012 Flying Pig Marathon. One of the purposes of this survey was to gather important information about the total economic impact of the Flying Pig Marathon and related events on the Greater Cincinnati Economy. This analysis of spending data by Flying Pig participants and the estimation of the economic impact of the marathon and half marathon was conducted by Dr. Steve Cobb of the Department of Economics and Dr. Doug Olberding of the Department of Sport Studies, both at Xavier University. This analysis focuses only on the economic impact associated with the full- and half marathons since these events have a significant number of out of town visitors.

This economic impact study focused on two types of spending related to the Flying Pig. The first part was designed to gauge the economic impact of non-local participants on the local economy. Only participants residing outside of the Cincinnati Consolidated Metropolitan Statistical Area (CMSA) were queried for this portion of the study.<sup>1</sup> The second part was designed to measure substituted spending by local participants (those inside the Cincinnati CMSA) as a result of the marathon and half marathon. Known as *import substitution*, this spending can be counted toward the total economic impact of an event when it replaces spending that otherwise would have occurred outside the area of impact. For example, when a local participant runs the Flying Pig Marathon instead of traveling to Chicago to run the LaSalle Banks Marathon, the dollars remaining in the local economy as a result of the participant's decision to run the Flying Pig Marathon can be counted toward the marathon's total economic impact. Also included in the second part is spending by guests of local participants who traveled to the Cincinnati area because of the Flying Pig Marathon.

## ***The total estimated economic impact of the 2012 Flying Pig***

The total estimated economic impact of the 2012 Flying Pig is between \$9.26 million and \$9.96 million (Table 1). Nonlocal direct spending attributable to the marathon and half marathon totaled \$3.63 million (see Table 3) and total local direct spending ranged between \$2.34 million and \$2.94 million (see Table 4).<sup>2</sup> Indirect spending resulting from both nonlocal and local expenditures ranged between \$3.29 million and \$3.39 million. The earnings impact, or the total amount households receive in the form of wages and salaries as a result of the Flying Pig Marathon, was between \$3.85 million and \$4.28 million. The number of jobs created or sustained in the local economy as a result of the economic activity associated with the Flying Pig Marathon is between 272 and 301.

**Table 1: 2012 Flying Pig economic impact estimates**

Group	Output	Earnings	Employment
Nonlocal participants	\$6,448,159	\$2,121,256	156.8
Local participants ("sure" only)	2,881,430	1,718,225	114.8
Local participants ("sure" plus 50% "not sure")	3,514,958	2,148,128	143.7
Total ("sure" only)	\$9,259,589	\$3,849,481	271.7
Total ("sure" plus 50% "not sure")	\$9,963,117	\$4,279,384	300.5

## ***Nonlocal and local participation***

Table 2 shows local and nonlocal participation totals for the full marathon and for the half marathon. Of the nearly 17,000 participants in the two events, 43% were from outside the Cincinnati area. In the full marathon, 53% of participants were nonlocal and in the half marathon, 39% were nonlocal.

**Table 2: 2012 Flying Pig full and half marathon participation numbers**

Category	Marathon	Half Marathon	Combined Races
Nonlocal Runners	2583	4740	7323
Local Runners	2259	7382	9641
Total Runners	4842	12122	16,964

<sup>1</sup> The Cincinnati CMSA includes the Ohio counties of Hamilton, Brown, Clermont, Butler, and Warren, the Kentucky counties of Boone, Campbell, Kenton, Grant, Gallatin, and Pendleton; and Ohio and Dearborn counties in Indiana.

<sup>2</sup> For an explanation of how the spending ranges were calculated, see the discussion under "Import substitution and the impact of local participants".

**Estimated direct spending by nonlocal participants**

Table 3 shows direct spending estimates by nonlocal Flying Pig participants in the Cincinnati area economy. Total direct spending by nonlocal participants in the full and half marathon is estimated to be \$3.6 million. Nonlocal per runner spending for the full marathon was \$594 dollars, while half marathon per runner spending was \$442.

Spending for lodging is the single largest expenditure category for Pig participants at about \$1.2 million. Also significant is discretionary spending by participants at restaurants, bars, entertainment venues and at the marathon expo which also totaled about \$1.2 million. Expenditures which included registrations fees, parking, rental cars, bus/taxi transportation, gasoline, grocery, drugstore and retail purchases totaled about \$1.3 million.

**Table 3: 2012 Flying Pig Marathon nonlocal expenditure amounts**

Spending category	Marathon		Half Marathon		Total spending
	Per Runner	Total Spending	Per Runner	Total Spending	
Gasoline	\$55.25	\$142,711	\$47.92	\$227,141	\$369,852
Parking	12.84	33,166	10.66	50,528	\$83,694
Taxi/Bus	5.94	15,343	2.08	9,859	\$25,202
Car Rental	11.08	28,620	8.27	39,200	\$67,820
Lodging	224.44	579,729	126.51	599,657	\$1,179,386
Dining	107.8	278,447	81.84	387,922	\$666,369
Bars	8.72	22,524	10.28	48,727	\$71,251
Entertainment	5.5	14,206	8.2	38,868	\$53,074
Expo	50.95	131,604	48.57	230,222	\$361,826
Dep't Stores	17.98	46,442	9.31	44,129	\$90,571
Grocery/Drug	12.92	33,372	10.54	49,960	\$83,332
Other Retail	2.11	5,450	3.48	16,495	\$21,945
Registration	78.83	203,618	74.68	353,983	\$557,601
Total	\$594.36	\$1,535,232	\$442.34	\$2,096,691	\$3,631,923

**Import substitution and the impact of local participants**

Table 4 on the next page presents information about the contribution of local participants to the total economic impact of the Flying Pig. There are two sources of impact attributable to local participants. The first is substituted spending by local runners who would have run another out of town race were it not for their participation in the Flying Pig. Table 4 presents two estimates of substituted spending. For runners who were certain that they would have substituted an out of town race had they not run the Pig, the total estimated impact was about \$2 million. When runners indicated that they "were not sure" whether they would have run another race if they had not run the Pig, only 50% of those indicating "not sure" were counted as substituted spending by local participants. In total, substituted spending by local participants accounted for between \$2 million ("sure" only) and \$2.5 million ("sure" plus 50% "not sure") in direct spending.

Furthermore, many local runners had out-of-town visitors because of their participation in the marathon. Spending by these individuals can also be counted toward the local impact of the event. According to the survey, these guests spent nearly \$400,000 in the local economy during their visit to Cincinnati. All told, substituted local spending by local runners combined with spending by their out-of-town guests accounted for between \$2.35 million and \$2.94 million in direct spending.

**Table 4: 2012 Flying Pig local impact contribution (import substitution/guest spending)**

Category	Marathon	Half Marathon	Total
<i>Import substitution</i>			
Local participants "sure" they would have run elsewhere	1324	2399	3723
Local participants who might have run elsewhere (50% "not sure")	411	1934	2345
Estimated spending per runner	\$610.61	\$479.88	
Total spending ("sure" only)	\$808,448	\$1,151,232	\$1,959,680
Total spending ("sure" plus 50% "not sure")	\$933,623	\$1,615,276	\$2,548,899
<i>Local guest spending</i>			
Number of local participants with guests	513	1321	1834
Spending per guest	\$216.92	\$214.74	
Total guest spending	\$111,280	\$283,672	\$394,952
Total substituted and guest spending ("sure" only)			\$2,354,632
Total with "sure" only plus 50% "not sure"			\$2,943,851

## Definition of terms

*Direct spending* – the dollar amount that is directly spent by marathon participants in the local economy as a result of the event. This includes registration fees and spending on local travel, lodging, food/beverages and retail.

*Indirect impact* – the amount of business activity generated in the entire economy as a result of direct spending in the local economy. This amount is calculated using location and industry specific multipliers.

*Total economic impact* – equals total direct spending plus the indirect impact of this spending.

*Earnings impact* – the total amount households receive in the form of wages and salaries as a result of the Flying Pig Marathon.

*Employment* -- the full- and part-time jobs necessary to support the level of business activity generated by the Flying Pig Marathon.

*Import substitution* -- spending which can be counted toward the total economic impact of an event when it replaces spending that otherwise would have occurred outside the area of impact.

## Additional information

For more information about the economic impact of marathons and the phenomenon known as import substitution, please see Cobb, S. & Olberding, D. (2007). The importance of import substitution in marathon economic impact analysis. *International Journal of Sport Finance*, 2 (2), 108-118.

## About the Authors

Steve Cobb is an associate professor in the Department of Economics at Xavier University in Cincinnati, Ohio. His research interests include economic impact analysis and the valuation of local public goods. Email: [cobb@xavier.edu](mailto:cobb@xavier.edu).

Doug Olberding is an associate professor and chair of the Department of Sport Studies at Xavier University in Cincinnati, Ohio. His other research interests include examining strategic management in sport organizations and the impact of brand equity on the value of sport enterprises. Email: [Olberdin@xavier.edu](mailto:Olberdin@xavier.edu).